LNP™ LUBRICOMP™ COMPOUND OCP36A

OCL-4536

DESCRIPTION

LNP LUBRICOMP OCP36A compound is based on Polyphenylene Sulfide (PPS) - branched resin containing 30% carbon fiber, 15% PTFE/silicone. Added features of this grade include: Wear Resistant, Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, Wear resistant, Carbon fiber filled, High stiffness/Strength
Fillers	Carbon Fiber, PTFE/Silicone
Polymer Types	Polyphenylene Sulfide, Branched (PPS, Branched)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20241031

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield	113	MPa	ISO 527
Tensile Stress, break	113	MPa	ISO 527
Tensile Strain, yield	0.7	%	ISO 527
Tensile Strain, break	0.7	%	ISO 527
Tensile Modulus, 1 mm/min	19880	MPa	ISO 527
Flexural Stress	176	MPa	ISO 178
Flexural Modulus	19000	MPa	ISO 178
Tensile Stress, yield	127	MPa	ASTM D638
Tensile Stress, break	119	MPa	ASTM D638
Tensile Strain, yield	0.9	%	ASTM D638
Tensile Strain, break	1.6	%	ASTM D638
Tensile Modulus, 50 mm/min	18610	MPa	ASTM D638
Flexural Stress	229	MPa	ASTM D790
Flexural Modulus	20130	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	3	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	13	kJ/m²	ISO 180/1U
Multiaxial Impact	1	J	ISO 6603
Izod Impact, notched, 23°C	37	J/m	ASTM D256
Izod Impact, unnotched, 23°C	320	J/m	ASTM D4812

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Instrumented Dart Impact Energy @ peak, 23°C	6	J	ASTM D3763
THERMAL [1]			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	248	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	272	°C	ISO 75/Bf
CTE, -40°C to 40°C, flow	7.0E-06	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	3.60E-05	1/°C	ISO 11359-2
HDT, 0.45 MPa, 3.2 mm, unannealed	273	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	258	°C	ASTM D648
CTE, -40°C to 40°C, flow	7.20E-06	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	3.60E-05	1/°C	ASTM E831
Relative Temp Index, Elec [2]	130	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	130	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	130	°C	UL 746B
PHYSICAL [1]			
Mold Shrinkage, flow, 24 hrs [3]	0.15	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [3]	0.66	%	ISO 294
Density	1.49	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs [3]	0.2	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	0.7	%	ASTM D955
Wear Factor Washer	15	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.36	-	ASTM D3702 Modified: Manual
Static COF	0.3	-	ASTM D3702 Modified: Manual
Density	1.53	g/cm³	ISO 1183
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E121562-101284446	-	-
UL Yellow Card Link 2	E207780-103093472	-	-
UL Recognized, 94V-0 Flame Class Rating	0.94	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Melt Temperature	315 – 340	°C	
Front - Zone 3 Temperature	330 – 345	°C	
Middle - Zone 2 Temperature	320 – 330	°C	
Rear - Zone 1 Temperature	305 – 315	°C	
Mold Temperature	140 – 165	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(3) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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